

AMENDMENTS TO THE SPECIFICATION

Please insert the heading -- BACKGROUND OF THE INVENTION --, in line 5 on page 1 of the specification.

Please replace the heading “Technical Field,” with --I. Technical Field-- in line 6 on page 1 of the specification.

Please amend paragraph [0001] as follows:

The present invention relates to a separator for a fuel cell, a method for producing the separator, and a solid oxide fuel cell (SOFC).

Please replace the heading “Background Art,” with --II. Description of the Related Art-- in line 12 on page 1 of the specification.

Please amend paragraph [0005] as follows:

In the solid oxide fuel cell constituted as described above, the oxygen supplied to the air electrode side of the power generation cell via the separator and the air electrode current collector reaches near the boundary with the solid electrolyte through the pore in the air electrode layer, and there, the oxygen receives an electron from the air electrode to be ionized to oxide ion (O^{2-}). The oxide ion is diffusively moved in the solid electrolyte toward the direction of the fuel electrode. When reaching near the boundary with the fuel electrode, the oxide ion reacts there with fuel gas to produce a reaction product (H_2O and the like), and emits an electron to the fuel electrode. The electron is taken out by the fuel electrode current collector, and thereby current is made to flow and a predetermined electromotive force can be obtained.

Please replace the heading “Disclosure of the Invention,” with --SUMMARY OF THE INVENTION-- in line 10 on page 1 of the specification.

Please amend paragraph [0015] as follows:

According to the first aspect of the present invention, multiple gas discharge ports are provided on approximately whole area of the layer surface of the separator, and the reactive gas (fuel gas, oxidizer gas) is made to be discharged like a shower from the gas discharge ports toward the power generation cell, as a result of which the gas concentration on the cell face can be made uniform. Therefore, deviation in the electrode reaction can be suppressed and current density within the cell can be made uniform, with the result that the output power density per unit area is increased so as to enable the power generation efficiency of the power generation cell as a whole to be remarkably improved, and that temperature distribution within the cell face is made uniform so as to prevent mechanical failure by thermal stress in the power generation cell.

Further, the wall surface of the hollow part and the inner flow passage of the separator, which surface is exposed to the reactive gas, ~~is~~are subjected to the aluminum diffusion coating treatment, so that it is possible to remarkably improve high temperature corrosion resistance of the wall surface, and to prevent deterioration of the separator caused by oxidization and carburization.

Please replace the heading “Brief Description of the Drawings,” with --BRIEF DESCRIPTION OF THE DRAWINGS-- in line 9 on page 11 of the specification.

Please replace the heading “Best Mode for Carrying Out the Invention,” with – DETAILED DESCRIPTION OF THE INVENTION-- in line 13 on page 12 of the specification.

Please amend paragraph [0024] as follows:

The separator 8 is formed into an approximately disk shape by using stainless steel and the like. As shown in Figure 2, a first and second hollow parts 10a, 10b are provided inside the separator 8, and these hollow parts 10a, 10b are separated by a partition wall 14. A gas inlet 11a which introduces fuel gas into the first hollow part 10a from a manifold for fuel (not shown), and a gas inlet 11b which introduces air as oxidizer gas into the second hollow part 10b from a manifold for oxidizer (not shown) are provided in the outer peripheral part of the separator 8. Further, multiple gas discharge ports 12a, 12b for discharging reactive gas introduced from the

gas inlets 11a, 11b into each of the hollow parts 10a, 10b, are provided on layer surfaces (surfaces facing the power generation cells 5) 18a, 18b of the separator 8 so as to be spread on approximately whole area of the layer surface, and thereby the reactive gas is discharged like a shower toward the power generation cell 5 from the gas discharge ports 12a, 12b. Note that in the case of the end plate 9, as shown in Figure 3, one of the first and second hollow parts 10a, 10b is provided in the end plate, and multiple gas discharge ports 12a, 12b are provided on the face adjacent to the current collectors 6, 7.

Please cancel the heading “Industrial Applicability,” in line 24 on page 27 of the specification.